

Application No.: 09/998935

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Sub B2
Cont.

where R^1 and R^3 independently, are selected from the group consisting of H and C_nH_{2n+1} where n is an integer ranging from 1 to 5, and R^2 is a divalent radical selected from the group consisting of benzeno ($-C_6H_4-$), substituted benzeno, triazine, C_mH_{2m} where m is an integer ranging from 1 to 10, and combinations thereof,

the relative amounts of said co-monomer and said crosslinking agent being selected such that (i) the ratio of the number of equivalents of amide groups to the number of equivalents of carboxylic acid groups is at least about 0.1,

wherein the pressure sensitive adhesive composition comprises no greater than 10% by weight of a tackifier and no greater than 2% by weight of a plasticizer.

A version marked up to show changes made to the claim(s) relative to the previous version of the claim(s) is attached.

Remarks

Claims 1 to 33 are pending. Claims 16 to 33 have been withdrawn from consideration. Claims 1, 14 and 15 are amended. Support for these amendments can be found at page 6, line 16, and in Example 5 of the application as originally filed.

Restriction

Claims 1-3 have been restricted under 35 U.S.C. § 121 as follows:

I. Claims 1-15 are said to be drawn to a pressure sensitive adhesive and an adhesive article made from it, classified in Class 428, subclass 343;

II. Claims 16-33 are said to be drawn to a method of using the pressure sensitive adhesive, classified in Class 118, subclass 505;

During a telephone conversation with Examiner Travis Ribar on July 16, 2002, a provisional election was made with traverse to elect Group I (i.e., claims 1-15). Applicant hereby confirms election of Group I (i.e., claims 1-15), with traverse, and respectfully requests reconsideration and withdrawal or modification of the restriction.

The Examiner states that the product can be used in a materially different process, such as using the product as a tape to attach two objects to each other. Applicants submit the inventions are

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so interrelated that a search of one group of claims will reveal art to the other. Further, the classification of Groups I and II claims in different classes and subclasses is not sufficient grounds to require restriction.

Were restriction to be effected between the claims in Groups I and II, a separate examination of the claims in Groups I and II would require substantial duplication of work on the part of the U.S. Patent and Trademark Office. Even though some additional consideration would be necessary, the scope of analysis of novelty of all the claims of Groups I and II would have to be as rigorous as when only the claims of Group I were being considered by themselves. Clearly, this duplication of effort would not be warranted where these claims of different categories are so interrelated. Further, Applicant submits that for restriction between the claims in Groups I and II would place an undue burden on Applicant's assignee by requiring payment of a separate filing fee for examination of the nonelected claims, as well as the added costs associated with prosecuting three applications and maintaining three patents.

Oath

Per a telephone conversation with the Examiner on Monday, October 28, 2002, Applicants have confirmed that a proper oath is present in the application.

§ 102 Rejections

Claims 1-9 and 11-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Number 5,648,425 to Everaerts et al. ("Everaerts"). Everaerts teaches a pressure sensitive adhesive article comprising a pressure sensitive adhesive made from an acrylate ester, a carboxylic acid functional monomer and a crosslinking agent. The Examiner noted that the elements were the same as the applicant's pressure sensitive adhesive elements.

Applicants have amended claim 1 and claim 15. Claims 1 and 15 now recite a pressure sensitive adhesive composition consisting essentially of the reaction product of: a copolymer comprising the reaction product of (a) a (meth)acrylate ester of a non-tertiary alcohol in which the alkyl group contains between 1 and 8 carbon atoms, inclusive, and whose homopolymer has a glass transition temperature no greater than about 0°C; and (b) a carboxylic acid-functional,

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ethylenically unsaturated co-monomer. Everaerts fails to teach or suggest such a pressure sensitive adhesive composition.

The pressure sensitive adhesive composition in Everaerts comprises at least one lower alkyl acrylate having an alkyl group which comprises from about 4 to about 12 carbon atoms, at least one higher alkyl acrylate having an alkyl group which comprises from about 12 to 26 carbon atoms, at least one polar monomer and sufficient crosslinker. The higher alkyl acrylate is an element of the disclosure in Everaerts.

The present invention does not allow for such higher alkyl acrylates as an essential element of the claimed pressure sensitive adhesive.

The rejection of claims 1-9 and 11-15 under 35 U.S.C. § 102(b) as being anticipated by Everaerts has been overcome and should be withdrawn.

§ 103 Rejections

In order to present a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Everaerts in view of U.S. Patent Number to Peloquin et al. (Peloquin.) Claim 10 also stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Everaerts in view of JP-02178379A and JP-03281585A ("Japanese Abstracts.") These rejections are respectfully traversed. As stated above, claims 1 and 15 have been amended to clearly define the pressure sensitive adhesive. Claim 10 depends directly from Claim 1. While not conceding proper motivation exists to modify Everaerts with Peloquin or the Japanese Abstracts, even if such a modification is proper Everaerts fails to teach or suggest such adhesive as claimed in the amended claims. The combination with Peloquin and the Japanese Abstracts with respect to the crosslinkers used fail to remedy this deficiency in Everaerts.

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Claims 1-9 and 1-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number to 5,914,186 to Yau et al. ("Yau") in view of Everaerts. This rejection is respectfully traversed. The Examiner stated that Yau discloses a high temperature resistant pressure sensitive adhesive tape made from an acrylate ester, a carboxylic acid functional monomer and a crosslinking agent. The Examiner concedes that Yau fails to teach or disclose the crosslinking agent as described in the present claims. In actuality, Yau teaches a microparticulate conductive adhesive comprising polymer electrolyte base polymers. (See Col. 6, lines 31-39, and Example 1.)

However, as stated above, Claims 1 and 15 have been amended to recite a pressure sensitive adhesive composition consisting essentially of the reaction product of: a copolymer comprising the reaction product of (a) a (meth)acrylate ester of a non-tertiary alcohol in which the alkyl group contains between 1 and 8 carbon atoms, inclusive, and whose homopolymer has a glass transition temperature no greater than about 0°C; and (b) a carboxylic acid-functional, ethylenically unsaturated co-monomer. While not conceding proper motivation exists to modify Yau with Everaerts, even is such a modification is proper, both Yau and Everaerts fail to teach or suggest such a pressure sensitive adhesive composition.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yau in view of Everaerts and further in view of Peloquin. Claim 10 also stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yau in view of Everaerts and further in view of the Japanese Abstracts. These rejections are respectfully traversed. As stated above, claims 1 and 15 have been amended to clearly define the pressure sensitive adhesive. Claim 10 depends directly from Claim 1. While not conceding proper motivation exists to modify Yau and Everaerts with Peloquin or the Japanese Abstracts, even is such a modification is proper Yau and Everaerts fail to teach or suggest such adhesive as claimed in the amended claims. The combination with Peloquin and the Japanese Abstracts with respect to the crosslinkers used fail to remedy this deficiency.

Claims 1-9 and 11-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 6,337,128 to Oji et al. ("Oji") in view of Everaerts. This rejection is respectfully traversed. The Examiner states that Oji teaches a pressure sensitive adhesive made

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from an acrylate ester, a carboxylic acid and an aziridine crosslinker. In actuality, Oji teaches that the acrylate ester is in a copolymer with a (meth)acrylamide.

However, as stated above, Claims 1 and 15 have been amended to recite a pressure sensitive adhesive composition consisting essentially of the reaction product of: a copolymer comprising the reaction product of (a) a (meth)acrylate ester of a non-tertiary alcohol in which the alkyl group contains between 1 and 8 carbon atoms, inclusive, and whose homopolymer has a glass transition temperature no greater than about 0°C; and (b) a carboxylic acid-functional, ethylenically unsaturated co-monomer. While not conceding proper motivation exists to modify Oji with Everaerts, even if such a modification is proper, both Oji and Everaerts fail to teach or suggest such a pressure sensitive adhesive composition.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Oji in view of Everaerts and further in view of Peloquin. Claim 10 also stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Oji in view of Everaerts and further in view of the Japanese Abstracts. These rejections are respectfully traversed. As stated above, claims 1 and 15 have been amended to clearly define the pressure sensitive adhesive. Claim 10 depends directly from Claim 1. While not conceding proper motivation exists to modify Oji and Everaerts with Peloquin or the Japanese Abstracts, even if such a modification is proper Oji and Everaerts fail to teach or suggest such adhesive as claimed in the amended claims. The combination with Peloquin and the Japanese Abstracts with respect to the crosslinkers used fail to remedy this deficiency.

The rejection of claims 1 and 15 under 35 U.S.C. § 103(a) has been overcome and should be withdrawn. Claims 2-14 each add additional features to claim 1. Claim 1 is patentable, for example, for the reasons given above. Thus, claims 2-14 are likewise be patentable.

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In view of the above, it is submitted that the application is in condition for allowance.
Reconsideration of the application is requested.

October 30, 2002

Date

Respectfully submitted,

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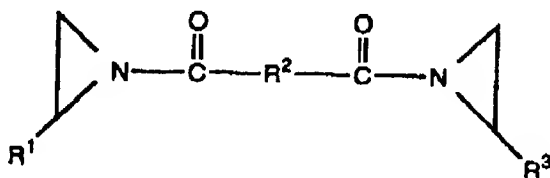
Version with markings to show amendments made:

1. (Amended) An adhesive article comprising:

- (1) a backing; and
- (2) a pressure sensitive adhesive composition on said backing,

said composition [comprising] consisting essentially of the reaction product of:

- (A) a copolymer comprising the reaction product of (a) a (meth)acrylate ester of a non-tertiary alcohol in which the alkyl group contains between 1 and [14] 8 carbon atoms, inclusive, and whose homopolymer has a glass transition temperature no greater than about 0°C; and (b) a carboxylic acid-functional, ethylenically unsaturated co-monomer; and
- (B) a bis-amide crosslinking agent having the formula:



where R^1 and R^3 independently, are selected from the group consisting of H and $\text{C}_n\text{H}_{2n+1}$ where n is an integer ranging from 1 to 5, and R^2 is a divalent radical selected from the group consisting of benzeno ($-\text{C}_6\text{H}_4-$), substituted benzeno, triazine, C_mH_{2m} where m is an integer ranging from 1 to 10, and combinations thereof,

the relative amounts of said co-monomer and said crosslinking agent being selected such that (i) the ratio of the number of equivalents of amide groups to the number of equivalents of carboxylic acid groups is at least about 0.1,

wherein the pressure sensitive adhesive composition comprises no greater than 10% by weight of a tackifier and no greater than 2% by weight of a plasticizer.

14. (Amended) An adhesive article according to claim 1 wherein the alkyl group contains between 4 and [14] 8 carbon atoms.

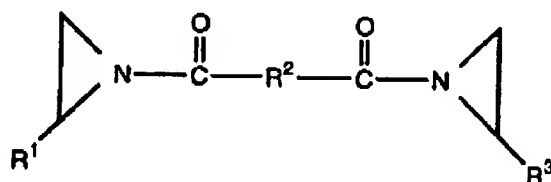
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15. (Amended) A pressure sensitive adhesive composition [comprising] consisting essentially of the reaction product of:

(A) a copolymer comprising the reaction product of (a) a (meth)acrylate ester of a non-tertiary alcohol in which the alkyl group contains between 1 and [14] 8 carbon atoms, inclusive, and whose homopolymer has a glass transition temperature no greater than about 0°C; and (b) a carboxylic acid-functional, ethylenically unsaturated co-monomer; and

(B) a bis-amide crosslinking agent having the formula:



where R^1 and R^3 independently, are selected from the group consisting of H and $\text{C}_n\text{H}_{2n+1}$ where n is an integer ranging from 1 to 5, and R^2 is a divalent radical selected from the group consisting of benzeno ($-\text{C}_6\text{H}_4-$), substituted benzeno, triazine, C_mH_{2m} where m is an integer ranging from 1 to 10, and combinations thereof,

the relative amounts of said co-monomer and said crosslinking agent being selected such that (i) the ratio of the number of equivalents of amide groups to the number of equivalents of carboxylic acid groups is at least about 0.1,

wherein the pressure sensitive adhesive composition comprises no greater than 10% by weight of a tackifier and no greater than 2% by weight of a plasticizer.